

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claim 1-32. (Canceled)

Claim 33. (Currently Amended) A method for treating a proliferative disease in a patient in need, said method comprising administering an effective amount of a composition by direct administration into an accessible tumor or at its periphery, said composition comprising a vector or a mixture of vectors comprising (i) a nucleic acid sequence encoding all or part of a MIP chemokine or a natural variant of MIP-1 $\alpha$  or ~~MIP-1 $\alpha$~~  or MIP-1 $\beta$ , and (ii) at least one nucleic acid sequence encoding IL-2,

wherein said nucleic acid sequences (i) and (ii) are placed under the control the elements required for expression of both IL-2 and said MIP chemokine in said patient;

wherein said IL-2 and MIP chemokine work together synergically to inhibit the growth or cause the rejection of a tumor in said patient when compared to the anti-tumor response in said patient administered with a composition comprising a vector comprising only the nucleic acid sequence (i) or the nucleic acid sequence (ii).

Claim 34. (Previously Presented) The method according to claim 33, wherein said vector is an adenoviral vector.

Claim 35. (Previously Presented) The method according to claim 34, wherein said adenoviral vector is defective for the replication.

Claim 36. (Previously Presented) The method according to claim 35, wherein said adenoviral vector defective for replication is deleted of the E1 region.

Claim 37. (Previously Presented) The method according to claim 35, wherein said adenoviral vector defective for replication is deleted of the majority of the E1 and of the E4 regions.

Claim 38. (Previously Presented) The method according to claim 36 or 37, further lacking all or part of the E3 region.

Claim 39. (Previously Presented) The method according to claim 33, wherein said vector is a poxviral vector deriving from a poxvirus.

Claim 40. (Previously Presented) The method according to claim 39, wherein said poxvirus is selected from the group consisting of vaccinia virus, MVA and canarypox.

Claim 41. (New) The method according to claim 33, wherein said nucleic acid sequences (i) and (ii) are inserted into the same recombinant vector.

Claim 42. (New) The method according to claim 33, wherein said nucleic acid sequences (i) and (ii) are inserted into the distinct recombinant vector.

Claim 43. (New) The method according to claim 33, wherein said MIP chemokine is MIP-1 alpha or a natural variant of MIP-1 alpha.

Claim 44. (New) The method according to claim 33, wherein said MIP chemokine is MIP-1 beta or a natural variant of MIP-1 beta.

Claim 45. (New) A method for inhibiting the growth of a tumor or cause the rejection of a tumor in a patient in need comprising administering an effective amount of a composition by direct administration into an accessible tumor or at its periphery, said composition comprising a vector or a mixture of vectors comprising (i) a nucleic acid sequence encoding all or part of a MIP chemokine, and (ii) at least one nucleic acid sequence encoding IL-2, wherein said nucleic acid sequences (i) and (ii) are placed under the control of the elements required for expression of both IL-2 and said MIP chemokine in said patient.

Claim 46. (New) The method according to claim 45, wherein said nucleic acid sequences (i) and (ii) are inserted into the same recombinant vector.

Claim 47. (New) The method according to claim 45, wherein said nucleic acid sequences (i) and (ii) are inserted into the distinct recombinant vector.

Claim 48. (New) The method according to claim 45, wherein said MIP chemokine is MIP-1 alpha or a natural variant of MIP-1 alpha.

Claim 49. (New) The method according to claim 45, wherein said MIP chemokine is MIP-1 beta or a natural variant of MIP-1 beta.

Claim 50. (New) The method according to claim 45, wherein said vector is an adenoviral vector.

Claim 51. (New) The method according to claim 50, wherein said adenoviral vector is defective for the replication.

Claim 52. (New) The method according to claim 51, wherein said adenoviral vector defective for the replication is deleted of the E1 region.

Claim 53. (New) The method according to claim 51, wherein said adenoviral vector defective for the replication is deleted of the majority of the E1 and of the E4 regions.

Claim 54. (New) The method according to claim 52, further lacking all or part of the E3 region.

Claim 55. (New) The method according to claim 45, wherein said vector is a poxviral vector deriving from a poxvirus.

Claim 56. (New) The method according to claim 55, wherein said poxvirus is selected from the group consisting of vaccinia virus, MVA and canarypox.

Claim 57. (New) The method according to claim 53, further lacking all or part of the E3 region.